RASTA
Center for Road Technology

Letter No: RAS/ Con/ 15-16/ 519

To,
The Commissioner,
Office of the Commissioner, BBMP Head Office,
N.R.Circle,
Bangalore.

Date: 16.06.15

Dear Sir,

Ref: Your letter No. A/PR/G667/15-16 dated 02-05-2015
Sub: Inspection of Completed works and Pending Bills

With reference to the above subject the Inspection of the following works of Ward no. 7, Kodigehalli Sub Division, Byatarayanapura has been completed and the Inspection Report is enclosed for your reference.

1. Improvement to Roads and drains from NH-7 to Jakkur Kaval Road in Ward No 7 Kodigehalli Sub Division (Sl. No. 1)
2. Improvement of Roads in Muneshwara swamy Temple roads and cross roads at Amruthahalli in ward No.7 Kodigehalli Sub Division(Sl. No.2)
3. Improvements of Roads, drains and culverts in main Roads and Cross roads in Hottappa Layout in ward No. 7, Kodigehalli sub division (Sl. No.6)
4. Improvements to Road drains and asphalting to roads in Vinayaka L/O 1st main, 2nd stage in Ward No:07 Byatarayanapura in Kodigehalli sub division (Sl. NO. 8)
5. Improvement to Road drains and Asphalting to roads in Vinayaka L/O 2nd cross, 1st stage in ward no:07, Byatarayanapura in kodigehalli sub division (Sl. NO.9)
6. Improvement to Road drains and Asphalting to roads in Vinayaka L/O 2nd main, 2nd stage in ward no:07, Byatarayanapura in kodigehalli sub division (Sl. No.10)

RASTA-Resource Centre for Asphalt and Soil Training Academy, VOLVO Construction Equipment Road Machinery Campus, # 7 & 8 ,Peenya Industrial Area, Bangalore – 560 058, India
Tel: 91-080-22192500, Fax: 91-080 - 28375483 / 28394651, e-mail: group.rasta@rastaindia.com

7. Improvement to Road drains and Asphalting to roads in Venkanagowda layout Kempapura 1st B Main in Ward No.07 (Sl. NO.12)
8. Improvements of Roads and construction of RCC drain in "A" Block Sahakarnagar in Ward No.07, Kodigehalli Sub division (Sl. NO. 13)
9. Improvement of Roads and drains in Vayunnadara layout and Nethajinagar in ward No.7 Kodigehalli Sub Division (Sl. NO. 14)
10. Construction of dry waste collection centre at Amruthanagara in Ward no:07 of Kodigehalli Sub division (Sl. NO. 17)
11. Construction of RCC drain at Maramma Temple main road in Amruthahalli in Ward No. 07 K.S.D (Sl. No. 18)
12. Providing and Fixing name boards in Vinayaka and Venkatagowda Layout in Ward No.07 Byatarayanapura, Kodigehalli sub division (Sl. NO. 19)
13. Improvements of Concrete roads and drains at Byatarayanapura in Ward No.07 of Kodigehalli sub division (Sl. NO. 28)
14. SC / ST Houses Bill (6 items)

Please do the needful.

Regards,

Dr. Krishnamurthy
Professor – PG studies & STA
RASTA

Copy to:

1. Executive Engineer, BBMP Yelahanka

Dr. Krishnamurthy
Professor - PG Studies
RASTA Centre for Road Techn
VOLVO Construction Equipme
Phase I, Peenya Industrial Ar
Bangalore - 560 058, India

(7)

RASTA
Center for Road Technology

BRUHAT BANGALORE MAHANAGARA PALIKE

INSPECTION REPORT

Sl No	Item	Description
1	Name of Work	Improvement to Road drains and Asphalting to roads in Venkanagowda layout Kempapura 1st B Main in Ward No.07 (Sl. NO.12)
2	Estimate Cost	19.90 lakhs
3	Administrative Approval No and Date	JC/YEL/AA/701/12-13 dated 7/1/13
4	Technical sanction No. and Date	EE/BTP/TS/311/12-13 dated 10/1/13
5	Job Code No. and P Code No.	007-13-000018 P-1771
6	Tender Direct Entrested to KRIDL	-
7	If Tender, Tender Notification No. Date and Publication in daily news Paper	EE/BTP/BBMP/E-PMT/01/12-13 dated 23/5/13
8	Tender Approved Details	Data Not available
9	Work Order No and Date	EE/BTP/BBMP/E-TND/68/13-14 dated 4/7/13
10	Stipulation time of Completion	60 days
11	Actual Date of Commencement	Data Not available
12	Actual Date of Completion	2/8/2013
13	Delay if any	Data Not available
14	Reson for Delay	Data Not available
15	Payment made till date.	--
16	BR NO. and Date	184 dated 19/8/13
17	Status of Work	Completed
18	Photograph verfied	Yes
19	Date of Inspection	22.05.15
20	MB No. and Page No.	1922 Pg no. 192112
21	Test Result	Please Refer Anncxure -1

22	**Section officer**	Basavaraju
23	**Sub Division Officer**	K.P.Neelakantaiah
24	**Observation**	Please Refer Anncxure -2
a	**Work Quality**	Satisfactory
b	**Comments**	It was observed that most of the BBMP works do not follow the Mix design for gradation and also the Marshall properties for OBC, air voids and stability.This is observed as degradation of the materials and results less durability. It was oberved that the thickness of SDBC has an average 22mm. This deficiency could be attributed to the wear and tear, settlement, whip off, over a period of about 2 years which the pavement has already served.A permissble 5-10 % wear and 10% whip off can be acceptable for a pavement which has served for about 2 years.The BS Slab has to be replaced in some places as it has been damaged.For side drain repair the existing BS slab have to be reused with addition of 20% replacement for the broken slabs.The overall work has been carried out with good quality according to specifications. Surface condtion is good and camber has been provided. The works stands completed as on date and is found satisfactory the Bill may be considered for clearance.

Dr. Krishnamurthy
Professor - PG Studies
RASTA Centre for Road Technology
VOLVO Construction Equipment Campus
Phase I, Peenya Industrial Area
Bangalore – 560 058, India

RASTA
Center for Road Technology

Date / 15 /06 /15

Name of the work: Improvement to Road drains and Asphalting to roads in Venkanagowda layout Kempapura 1st B Mai.. in Ward No.07

Client: - BBMP, Bytarayanapura

Sample: - Semi Dense Bituminous Core (Core 1)

Location: Sl.No. 12; Venkatagowda layout; Kerb side LHS -0.9m ;

Test Results

Check for **Semi Dense Bituminous Core**, obtained from field – Binder Content & Aggregate Gradation

Table 1

Chain age	Sieve size mm	Obtained Gradation %Passing	Desired Gradation **SDBC** Grade II % Passing	Remarks
Sl.No. 12; Venkatagowda layout; Kerb side LHS -0.9m	19	100	-	As the mix design has not been followed, the degradation of materials is observed
	13.2	100	100	
	9.5	90.48	90-100	
	4.75	58.05	35-51	
	2.36	33.07	24-39	
	1.18	15.55	15-30	
	0.6	10.18	-	
	0.3	6.71	9-19	
	0.15	4.21	-	
	0.075	2.05	3-8	

Check for Binder Content in **SDBC** Core {Grade II} { Sl.No. 12; Venkatagowda layout; Kerb side LHS -0.9m ; } – By Bitumen Extraction Test

Total weight of Semi Dense bituminous (Core) mix taken-500g

Table 2

Binder Content	Binder Content for SDBC Grade II as per MoRTH specification.	Remarks
4.57 %	Requirement Min 5.0%	Deficiency due to evaporation of volatiles and ageing

Dr. Krishna murthy
Professor - PG Studies
RASTA Centre for Road Technology
VOLVO Construction Equipment Campus
Phase I, Peenya Industrial Area
Bangalore – 560 058, India

Dr. Krishnamurthy
Professor – PG studies
RASTA

RASTA
Center for Road Technology

BRUHAT BANGALORE MAHANAGARA PALIKE

ANNEXURE 2- INSPECTION REPORT - OBSERVATIONS

Sl. No. 12: Name of the Work: Improvements to Road drains and asphalting to roads in Venkanagowda layout Kempapura 1st B Main in Ward No.07 (Sl. NO. 12)					
Sl No	Item	Measurements and Qty as per Claims (MB & Bills)	Measurements and Qty as per Actuals	Deviation	% Deviation
1	Length of stretch				
a	Main Roads, 2nd main	261m	261m	nil	nil
b	3rd main	223m	223m	nil	nil
4	Width	8m	7.9m	0.1m	1.25%
5	Providing & Laying SDBC	25mm	24mm	nil	nil

Dr. Krishnamurthy
Professor - PG Studies
RASTA Centre for Road Technology
VOLVO Construction Equipment Campus
Phase I, Peenya Industrial Area
Bangalore – 560 058, India